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Ayuso Hernandez et al.

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(54) **STRAWBERRY PLANT NAMED 'DrisStrawOneHundredNine'**

(50) Latin Name: ***Fragaria x ananassa***
Varietal Denomination:
DrisStrawOneHundredNine

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A01H 6/74 (2018.01)
A01H 5/08 (2018.01)

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USPC **Plt./209**

(58) **Field of Classification Search**
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(57) **ABSTRACT**

A new and distinct variety of strawberry plant named 'DrisStrawOneHundredNine', particularly selected for its sweet flavor, overall fruit quality, long trusses, and open plant canopy, is disclosed.

5 Drawing Sheets

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STRAWBERRY PLANT NAMED 'DrisStrawOneHundredNine'

Latin name:

Botanical classification: *Fragaria* x *ananassa.*

Varietal denomination: The varietal denomination of the claimed variety of strawberry plant is 'DrisStrawOneHundredNine'.

BACKGROUND OF THE INVENTION

Cultivated strawberry is a hybrid species of the genus *Fragaria* that is grown worldwide for its fruit. Modern strawberry was first bred in Brittany, France, in the 18th century by crossing *Fragaria virginiana* with *Fragaria chiloensis*. Strawberry fruit is an aggregate accessory fruit, with the fleshy part of the fruit being derived from the receptacle that holds the ovaries.

Strawberry varieties vary widely in color, size, shape, flavor, season of ripening, degree of fertility, and susceptibility to disease. Certain varieties vary in foliage, and some vary in the relative development of their reproductive organs. Typically, strawberry flowers appear hermaphroditic in structure, but function as either male or female. Generally, commercial production of strawberry plants involves propagation from runners and distribution as either plugs or bare root plants. Cultivation is either perennial or annual plasticulture. During the off season, strawberries can also be produced in greenhouses.

Strawberry fruit is widely appreciated for its characteristic bright red color, aroma, juicy texture, and sweetness. Strawberry fruit is a popular fruit that is generally consumed either fresh or in prepared foods, such as preserves and baked goods.

Strawberry is an important and valuable fruit crop. Accordingly, there is a need for new varieties of strawberry plants. In particular, there is a need for improved varieties of strawberry plant that are stable, high yielding, and agronomically sound.

SUMMARY OF THE INVENTION

In order to meet these needs, the present invention is directed to an improved variety of strawberry plant. In particular, the invention relates to a new and distinct variety of strawberry plant (*Fragaria* x *ananassa*), which has been denominated as 'DrisStrawOneHundredNine'.

Strawberry plant variety 'DrisStrawOneHundredNine' was selected in Huelva, Spain in April 2019 and originated from a controlled cross between the female parent proprietary strawberry plant 'FS252.001' (unpatented) and the male parent 'DrisStrawFifty' (U.S. Plant Pat. No. 29,289). The original seedling of 'DrisStrawOneHundredNine' was first asexually propagated via cuttings in Valladolid, Spain in May 2019.

'DrisStrawOneHundredNine' was subsequently asexually propagated via cuttings, and has undergone testing at test plots in Moulay Bousselham, Morocco for four years (2020 to 2024). The present variety has been found to be stable and reproduce true to type through successive asexual propagations via cuttings and tissue culture.

'DrisStrawOneHundredNine' was particularly selected for its sweet flavor, overall fruit quality, long trusses, and open plant canopy.

DESCRIPTION OF THE DRAWINGS

This new strawberry plant is illustrated by the accompanying photographs. The colors shown are as true as can be reasonably obtained by conventional photographic procedures. Unless otherwise indicated, the photographs are of plants that are 6 months old.

FIG. **1** illustrates whole fruit of variety 'DrisStrawOneHundredNine'.

FIG. **2** illustrates longitudinal sections of fruit of variety 'DrisStrawOneHundredNine'.

FIG. **3** illustrates the upper surface (top row) and lower surface (bottom row) of flowers of variety 'DrisStrawOneHundredNine'.

FIG. **4** illustrates the upper surface (top) and lower surface (bottom) of leaves of variety 'DrisStrawOneHundredNine'.

FIG. **5** illustrates whole plants of variety 'DrisStrawOneHundredNine'.

DETAILED BOTANICAL DESCRIPTION

The following detailed descriptions set forth the distinctive characteristics of 'DrisStrawOneHundredNine'. The data which define these characteristics is based on observations taken in Moulay Bousselham, Morocco from 2020 to 2024. This description is in accordance with UPOV terminology. Color designations, color descriptions, and other phenotypical descriptions may deviate from the stated values and descriptions depending upon variation in environmental, seasonal, climatic, and cultural conditions. 'DrisStrawOneHundredNine' has not been observed under all possible environmental conditions. The botanical description of 'DrisStrawOneHundredNine' was taken from plants that were six months old. The indicated values represent averages calculated from measurements of several plants. Color references are primarily to The R.H.S. Colour Chart of The Royal Horticultural Society of London (R.H.S.) (2015 edition). Descriptive terminology follows the *Plant Identification Terminology, An Illustrated Glossary,* 2nd edition by James G. Harris and Melinda Woolf Harris, unless where otherwise defined.

Classification:

Species.—*Fragaria* x *ananassa.*

Common name.—Strawberry.

Denomination.—'DrisStrawOneHundredNine'.

Parentage:

Female parent.—Proprietary strawberry plant 'FS252.001' (unpatented).

Male parent.—'DrisStrawFifty' (U.S. Plant Pat. No. 29,289).

Plant:

Height.—26.5 cm.

Width.—39.25 cm.

Height/width ratio.—0.67.

Number of crowns per plant.—5.8.

Growth habit.—Semi-upright.

Density of foliage.—Medium.

Vigor.—Medium.

Stolon:

Average number of daughter plants per square foot.—14.

Diameter (*at bract*).—0.48 mm.

Overall color.—RHS 145A (Yellow green).

Anthocyanin coloration.—Absent or very weak.

Density of pubescence.—Medium.

Fruiting truss:

Length (*from crown to base of terminal flower or fruit*).—20.7 cm.

Diameter (*at base of truss*).—1.11 cm.

Number of berries per truss.—4.9.

Attitude at first picking.—Semi-erect.

Color (*at base of truss*).—RHS N144 (Strong yellow green).

Leaf:

Number of leaflets.—Three only.

Color of leaf upper surface.—RHS 137A (Moderate olive green).

Color of leaf lower surface.—RHS 139C (Moderate yellow green).

Blistering.—Medium.

Glossiness.—Medium.

Variegation.—Absent.

Terminal leaflet.—Length: 9 cm. Width: 6.2 cm. Length/width ratio: 1.5. Number of teeth per terminal leaflet: 17.9. Overall shape: Orbicular. Shape of base: Obtuse. Shape of apex: Rounded. Margin: Serrate to crenate. Margin profile: Involute (margins rolled inwards). Shape in cross section: Concave.

Petiole.—Length: 17.3 cm. Diameter: 4.6 mm. Overall color: RHS N144 (Strong yellow green). Pubescence: Medium. Attitude of hairs: Horizontal. Bract frequency (number present on each petiole): 0.

Petiolule.—Length: 7.7 mm. Diameter: 2.1 mm. Color: RHS N144D (Light yellow green).

Stipule.—Length: 21 mm. Width: 8.1 mm. Stipule color: RHS N145C-RHS N145D (Light yellow green). Anthocyanin coloration: Medium. Anthocyanin color: RHS N185C (Moderate purplish red). Pubescence: Medium.

Inflorescence:

Number of flowers per plant.—26.7.

Position of inflorescence in relation to foliage.—Beneath.

Flowering interval.—November to March.

Pedicel.—Attitude of hairs: Slightly outwards.

Flower.—Flower diameter (petal tip to petal tip on non-flattened flower): 22 mm. Arrangement of petals: Overlapping. Size of calyx in relation to corolla: Larger. Receptacle color: RHS N144D (Light yellow green). Stamen: Present. Anther color: RHS N23A-RHS N23B (Vivid orange yellow).

Petal.—Length: 9.6 mm. Width: 9.3 mm. Length/width ratio: 1.03.Number of petals per flower: 5. Color of upper surface: RHS NN155C (White). Color of lower surface: RHS NN155C (White). Overall shape: Orbicular. Shape of apex: Rounded. Margin: Entire. Shape of base: Concavo-convex.

Calyx.—Diameter (sepal tip to sepal tip, measured on back of flower): 25.5 mm.

Sepal.—Length: 7.6 mm. Width: 3.4 mm. Number of sepals per flower: 10. Overall shape: Elliptical. Margin: Entire.

Fruit:

Fruit size.—Length: 40.1 mm. Width: 32.9 mm. Length/width ratio: 1.2.

Fruit hollow.—Length: 14.7 mm. Width: 4.1 mm. Length/width ratio: 3.4.

Shape.—Conical.

Difference in shape of terminal and other fruits.—Moderate.

Fruit color.—RHS 44B and RHS N30A (Vivid reddish orange).

Evenness of color.—Slightly uneven.

Glossiness.—Strong.

Evenness of surface.—Even or very slightly uneven.

Width of band without achenes.—Medium.

Position of achenes.—Level with surface.

Position of calyx attachment.—Inserted.

Attitude of sepals.—Downwards.

Diameter of calyx in relation to diameter of fruit.—Slightly smaller.

Adherence of calyx.—Strong.

Firmness.—Firm.

Color of flesh (*excluding core*).—RHS N34B (Strong reddish orange).

Evenness of flesh color.—Slightly uneven.

Distribution of flesh color.—Marginal and central.

Color of core.—RHS 34C (Strong reddish orange).

Sweetness/soluble solids (*in° brix*).—8.8.

Individual fruit weight.—22 g/fruit.

Achenes.—Number of achenes per fruit: 265. Weight: 0.000599 g/achene. Color of upper (sunward) side: RHS 47A (Moderate red). Color of lower (shaded) side: RHS 1A (Brilliant greenish yellow).

Fruiting.—Harvest interval: December to April. Type of bearing: Partially remontant. Productivity: 0.4 kg to 0.7 kg of fruit per plant per season from 5-month-old plants when grown in Moulay Bousselham, Morocco.

Resistance to abiotic stress, pests, and diseases:

Two-spotted spider mite (*tetranychus urticae*).—Moderately resistant.

Botrytis fruit rot (*botrytis cinerea*).—Moderately resistant.

Powdery mildew (*podosphaera macularis*).—Moderately susceptible.

Anthracnose crown rot (*colletotrichum acutatum*).—Moderately resistant.

COMPARISON WITH PARENTAL AND REFERENCE VARIETIES

'DrisStrawOneHundredNine' differs from the female parent proprietary strawberry plant 'FS252.001' (unpatented) in that 'DrisStrawOneHundredNine' has less complex trusses compared to 'FS252.001'.

'DrisStrawOneHundredNine' differs from the male parent 'DrisStrawFifty' (U.S. Plant Pat. No. 29,289) in that 'DrisStrawOneHundredNine' has absent or very weak stolon anthocyanin coloration, medium leaf blistering, inflorescence position beneath foliage, inserted position of calyx attachment, and partially remontant type of bearing, whereas 'DrisStrawFifty' has strong stolon anthocyanin coloration, absent or very weak leaf blistering, inflorescence position above foliage, raised position of calyx attachment, and not remontant type of bearing.

'DrisStrawOneHundredNine' differs from the reference variety 'DrisStrawTwentySeven' (U.S. Plant Pat. No. 23,400) in that 'DrisStrawOneHundredNine' has absent or very weak stolon anthocyanin coloration, inflorescence position beneath foliage, medium width of band without achenes on fruit, and partially remontant type of bearing, whereas 'DrisStrawTwentySeven' has strong stolon anthocyanin coloration, inflorescence position above foliage, very broad width of band without achenes on fruit, and not remontant type of bearing.

'DrisStrawOneHundredNine' differs from the reference variety 'DrisStrawSixtyFive' (U.S. Plant Pat. No. 30,818) in that 'DrisStrawOneHundredNine' has medium leaf blistering, inflorescence position beneath foliage, the difference in shape of terminal and other fruits is moderate, achenes level with fruit surface, and partially remontant type of bearing, whereas 'DrisStrawSixtyFive' has absent or weak leaf blistering, inflorescence position level with foliage, the differ-

ence in shape of terminal and other fruits is none or very slight, achenes below the fruit surface, and not remontant type of bearing.

We claim:

1. A new and distinct variety of strawberry plant named 'DrisStrawOneHundredNine' as shown and described herein.

* * * * *

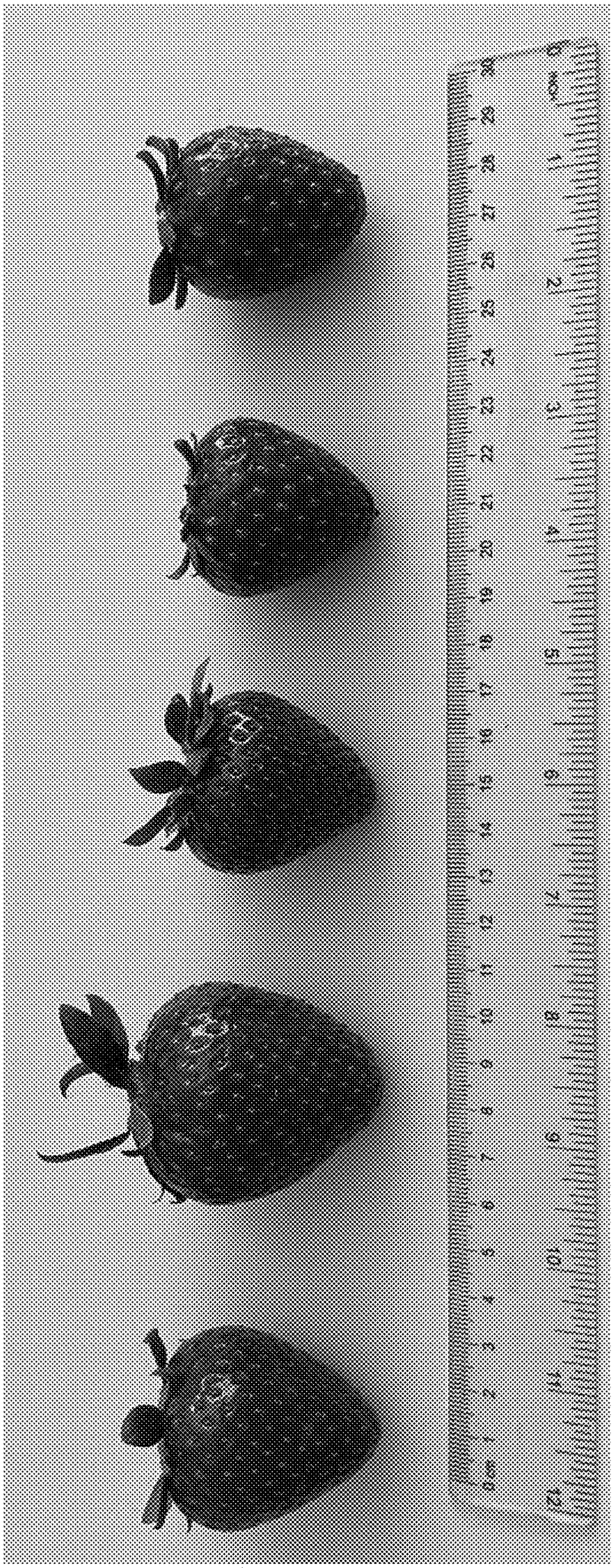

FIG. 1

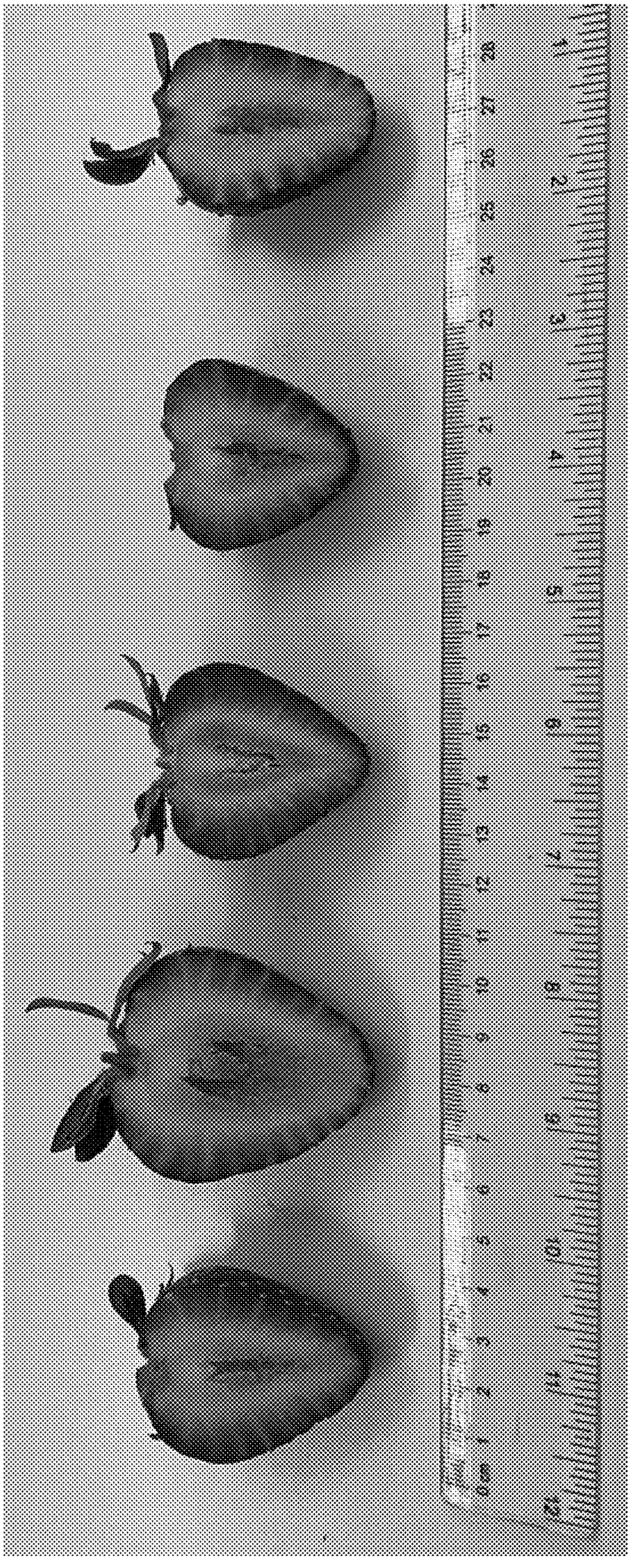

FIG. 2

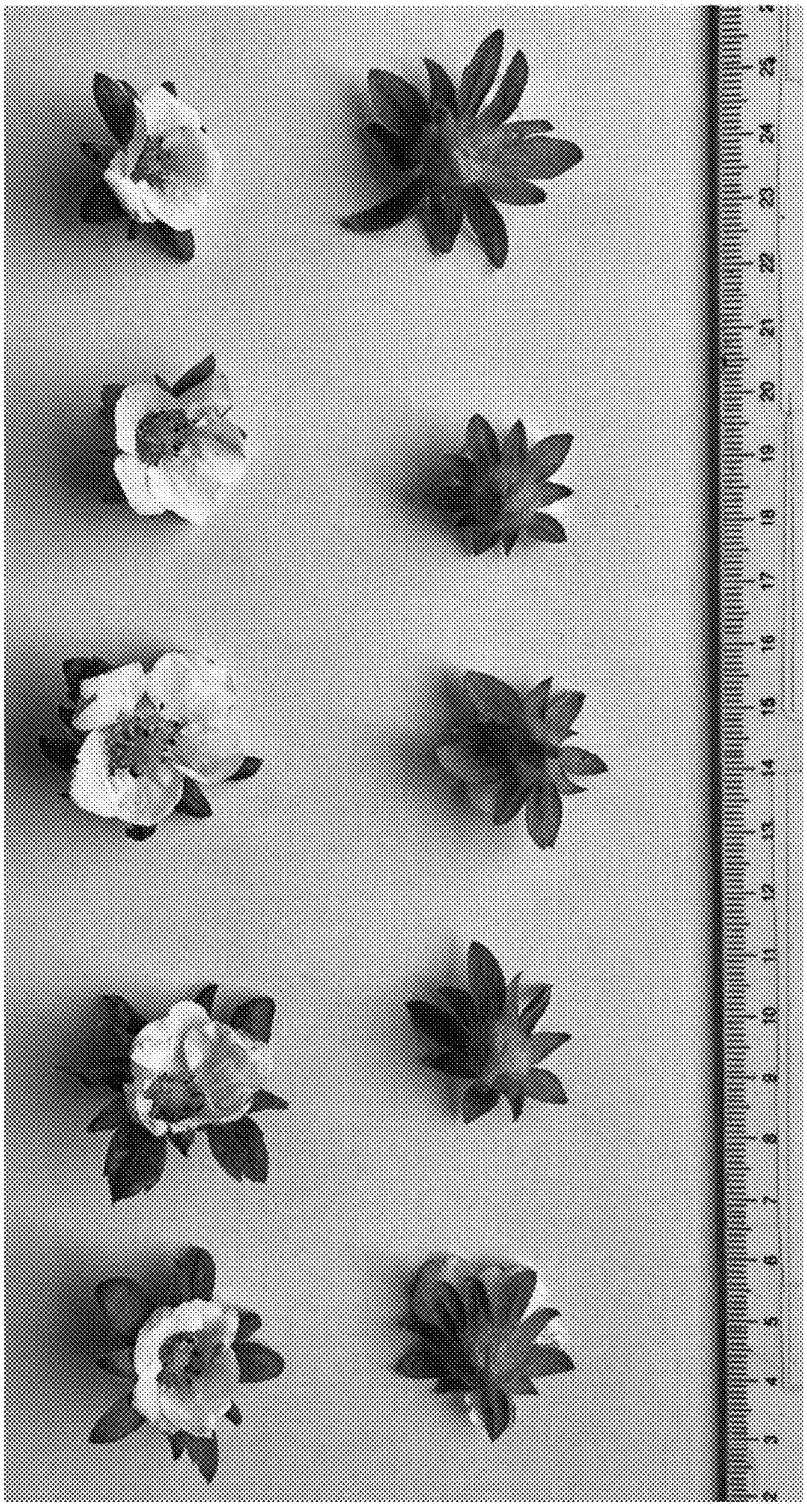

FIG. 3

FIG. 4

FIG. 5